

# PATENT ABSTRACTS OF JAPAN

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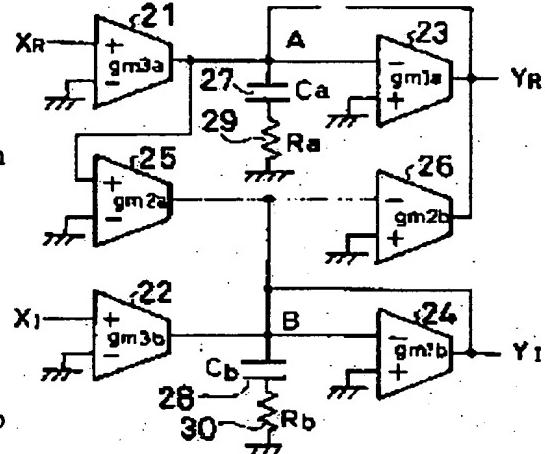
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## (54) COMPLEX BAND-PASS FILTER

### (57) Abstract:

**PROBLEM TO BE SOLVED:** To improve the distortion of a signal in a filter passing band due to frequency characteristics of an operational transconductance amplifier.

**SOLUTION:** A complex band-pass filter which has 1st to 6th OTA21 to OTA26 and 1st and 2nd capacitors 27 and 28 is provided with a 1st resistance 29 (or transistor) which has a resistance value Ra for canceling the distortion of an in-phase component signal, in the passing band between the 1st capacitor 27 on the output side of the first OTA21 and the earth, and with a 2nd resistance 30 which has a resistance value Rb for canceling the distortion of an orthogonal component signal in the passing band between the 2nd capacitor 28 on the output side of the second OTA22 and the ground. Those resistance values Ra and Rb are set with  $2/(\omega bC)$ . Consequently, the signals in the passing band have no distortion.



## LEGAL STATUS

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